

**Short Communication**

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**AMINO ACIDS AND SUGARS  
CONSTITUENTS OF LEAVES OF CAPPARIS  
CARTILAGINEA**

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*Capparis cartilaginea* belongs to family Capparidaceae [1,2] and is a shrubs of the arid plains of Pakistan. The plant has medicinal properties and is used in Ayurvedic/Unani medicines for the treatment of gout, paralysis, enlarged spleen and tuberculosis etc. [3].

Isolation of variety of chemical constituents have been reported from this family earlier [4-8]. We report below the results of our chromatographic identification of studies on the amino acids and carbohydrate contents of the plant (Tables 1, 2) following standard methods [9].

TABLE 1.

SOLVENT system	ELUTION time	STANDARD amino acid	R <sub>f</sub> value standard	R <sub>f</sub> value sample
n-BuOH:AcOH:H <sub>2</sub> O 4:1:5	22hrs.	Alanine	0.26024	0.26639
		Glutamine	0.21106	0.21516
		Valine	0.54508	0.54098
		Asparagine	0.18237	0.17418
		Cystine	0.07377	0.06967
		Methioine	0.55327	0.55737
		Glycine	0.18442	0.18852

TABLE 2.

SOLVENT system	ELUTION time	STANDARD sugars	R <sub>f</sub> value standard	R <sub>f</sub> values sample
n-BuOH:etOH:H <sub>2</sub> O 4:1:5 (Upper layer)	22hrs	Glucose	0.14977	0.14317
		Maltose	0.04955	0.04625
		Fructose	0.20704	0.20374

**Key words:** *Capparis cartilaginea*, Amino acid, Sugars

**Reference**

1. E. Nasir, S.I. Ali, Flora of West Pakistan (capparidaceae) No. 34, pp.9 (1973).
2. S.M.H. Jafri, *The Flora of Karachi*, (The Book Corporation Karachi, 1966), pp.131.
3. S.R. Baquar and M. Tasnif; *Medicinal Plants of Southern West Pakistan*. (PCSIR Karachi 1967), p.4.
4. A. Kjer, R. Gmelin and I. Larsen, Acta, Chem. Scand, 9, 857 (1955), Chem. Abs., 49, 16468 (1955).
5. V.M. Varvashtya, M.A. Orozov and L.G. Gromova, IZV. Akad. Naukkirg, SSR (I), 62 (1981).
6. P. Delavean, B. Koukdogbo and J.L. Pousset, Phytochemistry, 12 (12), 2693 (1973), Chem. Abs., 80, 68399, (1974).
7. J.M. Lopez de Azcona, As Ruiz and M.D. Gvelbenzu, Anal Esfins, Y. Quim (Madrid), 42, 825 (1946 Chem. Abs., 41, 5649 (1947).
8. R.M. Talipor and K.L. Tverskaya, UZB. Geol., ZH (3), 79, (1979), Chem. Abs, 91, 126302, (1979).
9. Ivor Smith and J.W.T. Seakins, Chromatographic and Electrophoretic Techniques. *Paper and Thin Layer Chromatography* (1976) Vol. 1, pp.18.